

IN THE CLAIMS

Claim 1. (Canceled)

Claim ³2. (Currently Amended) ~~The use~~ ²The method as claimed in Claim ²14, wherein the graft polymers have a hydrophilic and/or hydrophobic base polymer.

Claim ⁴3. (Currently Amended) ~~The use~~ ²The method as claimed in Claim ²14, wherein the hydrophilic base polymers are selected from the group consisting of polyalkylene glycols, polyvinyl alcohols, polyvinylamides, polyvinylpyrrolidone, polyethers, polyesters, polyurethanes, polyacrylamides, polysaccharides, cellulose ethers, polyalkyleneimines, polycarboxylic acids, polyvinylsulfonic acids ~~or~~, polyvinylphosphonic acids ~~or~~ and copolymers of the monomer components of these polymers.

Claim ⁵4. (Currently Amended) ~~The use~~ ³The method as claimed in Claim ³2, wherein the hydrophobic base polymers are selected from the group consisting of polyalkylene glycols, such as ethylene oxide-propylene oxide copolymers or ethylene oxide-propylene oxide block copolymers, polyethers, poly(meth)acrylates, polyolefins, polystyrene or styrene copolymers, polyvinyl acetate, polyvinyl ethers, polyvinyl formals, polyvinyl acetals, polyvinyl chloride or other halogenated polyvinyl compounds, polyacrylonitrile, polyamides, polyurethanes, silicones, polycarbonates, polyterephthates, cellulose, cellulose ethers ~~or~~, cellulose esters ~~or~~, polyoxymethylene and copolymers of the monomer components of these polymers.

Claim ⁶5. (Currently Amended) ~~The use~~ ²The method as claimed in Claim ²14, wherein the graft polymers contain grafted-on units of water-soluble and/or water-insoluble monomers.

Claim ⁷6. (Currently Amended) ~~The use~~ ⁶method as claimed in Claim ⁶5, wherein the units grafted on onto the base polymer make up from 10 to 90 % by weight of the graft polymer.

Claim ⁸7. (Currently Amended) ~~The use~~ ⁶method as claimed in Claim ⁶5, wherein the units grafted on onto the base polymer comprise N-vinylactams, N-vinylamides, acrylates, arylamides

and/or a vinyl esters.

Claim ~~8~~⁹. (Currently Amended) The use method as claimed in Claim ~~7~~⁸, wherein the units grafted ~~on~~² onto the base polymer comprise N-vinylcaprolactam.

Claims ~~9~~¹⁰ and 10. (Canceled)

Claim ~~11~~¹⁰. (Currently Amended) ~~The~~² The graft polymer as claimed in Claim ~~10~~² ~~11~~², wherein the hydrophilic base polymer is polyethylene glycol.

Claim ~~12~~¹¹. (Currently Amended) ~~The~~² The graft polymer as claimed in Claim ~~9~~² ~~11~~², wherein the unit grafted ~~on~~¹² onto the base polymer is N-vinylcaprolactam or else, if desired, a vinyl ester.

Claim ~~13~~¹². (Currently Amended) A process for preventing or reducing the formation of gas hydrates in liquid or gaseous systems, which comprises;

adding a graft polymer of Claim ~~12~~¹ to the liquid or gaseous systems system.

Claim ~~14~~². (New) A method of inhibiting gas hydrates, comprising:

contacting a gas hydrate with a graft copolymer.

Claim ~~15~~¹. (New) A graft polymer comprising:

a hydrophilic base polymer which is a polyalkylene glycol, a polyether or a polymer having at least one heteroatom in the main chain, with the proviso that polyphenylene ether is excluded as a base polymer, having a N-vinylactam grafted thereon.

Claim ~~16~~¹³. (New) The graft polymer as claimed in Claim ~~15~~¹, wherein said polymer having at least one heteroatom in the main chain is a polyurethane or a polyalkyleneimine and said N-vinylactam is grafted onto the base polymer with a N-vinylamide, an acrylates, an arylamides and/or a vinyl ester monomer.

Claim ~~17~~¹⁴. (New) The method as claimed in Claim ~~16~~⁷, wherein the units grafted onto the base polymer make up from 25 to 75 % by weight of the graft polymer.

Claim ~~18~~¹⁵. (New) A method of inhibiting gas hydrates, comprising:

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contacting a gas hydrate with a graft copolymer prepared by graft polymerizing a N-vinyl lactam, a N-vinyl amide, an acrylate, an arylamide or a vinyl ester onto a hydrophilic base polymer selected from the group consisting of polyalkylene glycols, polyvinyl alcohols, polyvinylamides, polyvinylpyrrolidone, polyethers, polyesters, polyurethanes, polyacrylamides, polysaccharides, cellulose ethers, polyalkyleneimines, polycarboxylic acids, polyvinylsulfonic acids, polyvinylphosphonic acids and copolymers of the monomer components of these polymers or onto a hydrophobic base polymer selected from the group consisting of polyalkylene glycols, polyethers, poly(meth)acrylates, polyolefins, polystyrene, styrene copolymers, polyvinyl acetate, polyvinyl ethers, polyvinyl formals, polyvinyl acetals, halogenated polyvinyl compounds, polyacrylonitrile, polyamides, polyurethanes, silicones, polycarbonates, polyterephthates, cellulose, cellulose ethers, cellulose esters, polyoxymethylene and copolymers of the monomer components of these polymers, thereby removing water from the gas hydrate.

¹⁶
Claim ~~19~~. (New) The process as claimed in Claim ¹⁵~~18~~, wherein the graft polymer is in the form of an aqueous solution or in a water/solvent mixture.
